Reviewer’s report

Title: Predicting the adult height of girls with advanced puberty after spontaneous growth

Version: 2
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Reviewer: Malgorzata M. Wasniewska

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Lemaire et al. reported the results of the retrospective, single-center, cohort study which was conducted on 50 girls who were monitored for idiopathic advanced puberty who reached their adult height (AH) after spontaneous puberty.

Advanced puberty in girls is defined as the onset of puberty between the ages of 8 yr and 10 yr and is a variant of normal puberty, frequently due to a familial condition rather than a pathological condition.

The objective of the study was to predict AH at initial evaluation and to characterize patients with an actual AH below –2 SD (152 cm) and/or lower than their target height (TH) by > one SD (5.6 cm). Data analysis using multiple linear regression models was performed.

The Authors established a ready-to-use formula that include TH, chronological and bone ages, height (SD) and pubic hair stage at the initial evaluation of advanced puberty and can be used at that initial evaluation to predict the AH. The Authors concluded that this formula can help the physicians to identify some subjects who might benefit from GnRH analog treatment.

Strong points:
1. Appropriate design of the study
2. Clear and logical presentation of the results with graphics and table
3. One – Center – study
4. Proper literature references.

Weak points:
1. Retrospective study.
2. Limited study population
3. Not well defined aims of the study (validation of the formula or assessment of the risk of reduced AH as a result of advanced puberty).
4. Results (2. Growth evolution and AH): the data in Table 1 should not be repeated in the text
5. The discussion could be shortened (Ad 1)
6. Conclusions are too long and not clear. It is not the right message for pediatricians that “formula can help the physicians to identify some subjects who might benefit from GnRH analog treatment”. For example, in different countries, it is not possible to prescribe the GnRH therapy Analogs in girls after 8 years of chronological age. Also I am not sure that GnRH therapy can improve adult height in girls with advanced puberty. I think it is better to stress the conditions that negatively affect the final height like obesity in that kind of patients, as has been said in the discussion. The “formula” can be an additional assessment of children with advanced puberty by pediatric endocrinologist.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests' below.